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U. S. Department of Agriculture

# Descriptive Catalog



## VEGETABLE VARIETIES for CANNERS and FREEZERS

**Michael-Leonard**  
*Company*

CHICAGO 16, ILLINOIS

SIOUX CITY 6, IOWA

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## F O R E W O R D

**S**CIENCE is the servant of successful nations. The high standard of living in America is due in large measure to discoveries of science and their prompt and practical application.

Modern plant breeding has been one of the most productive branches of science in promoting the betterment of mankind. For more than sixty-five years the Michael-Leonard Company has been alert in bringing promptly to seed users the best that plant breeding could create. Our quick and practical appraisals of new varieties from public sources give you dependable selections from our catalog without a tedious testing program of your own. In addition, our comprehensive company breeding program continues to develop for you new and more profitable seed varieties not obtainable elsewhere.

This research work embraces all the major vegetable types but we have a special interest in sweet corn. Our breeding specialists began working with hybridization of corn in 1920. We offer for your service more years of experience in this important field than any other major seed producer. No matter where you live, we urge you to take advantage of our counsel on hybrid sweet corn. There are five Michael-Leonard All-America winners included in our hybrid sweet corn series ranging from 58 to 98 days in maturity (based on Midwestern day length).

Our company is composed of Seedsmen, not just merchants. You can place your confidence in the seed varieties we grow and describe in the pages of this catalog.

### MICHAEL-LEONARD COMPANY

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Production Branches located in Idaho, Oregon, Wyoming and Montana

# *Vegetable* VARIETIES Adapted for **CANNING and FREEZING**

## **BEANS**

### **WAX**

**BRITTLEWAX** (Round Pod Kidney Wax)—60 days

PODS—6 inches long, stringless and fiberless, round, fleshy and of excellent quality.

PLANT—Medium green leaves, vigorous growing and spreading. 16" to 18" tall.

SEED—White with dark brown to black eye and kidney shaped.

USE—Freezing and cut beans.

**PENCIL POD BLACK WAX**—59 days

PODS—6" x 7/16" to 1/2", semi-round to round, stringless, fleshy, golden yellow.

PLANT—15" to 17", vigorous, medium green leaves, prolific.

SEED—Small, oblong, black.

USE—Freezing and cut beans.

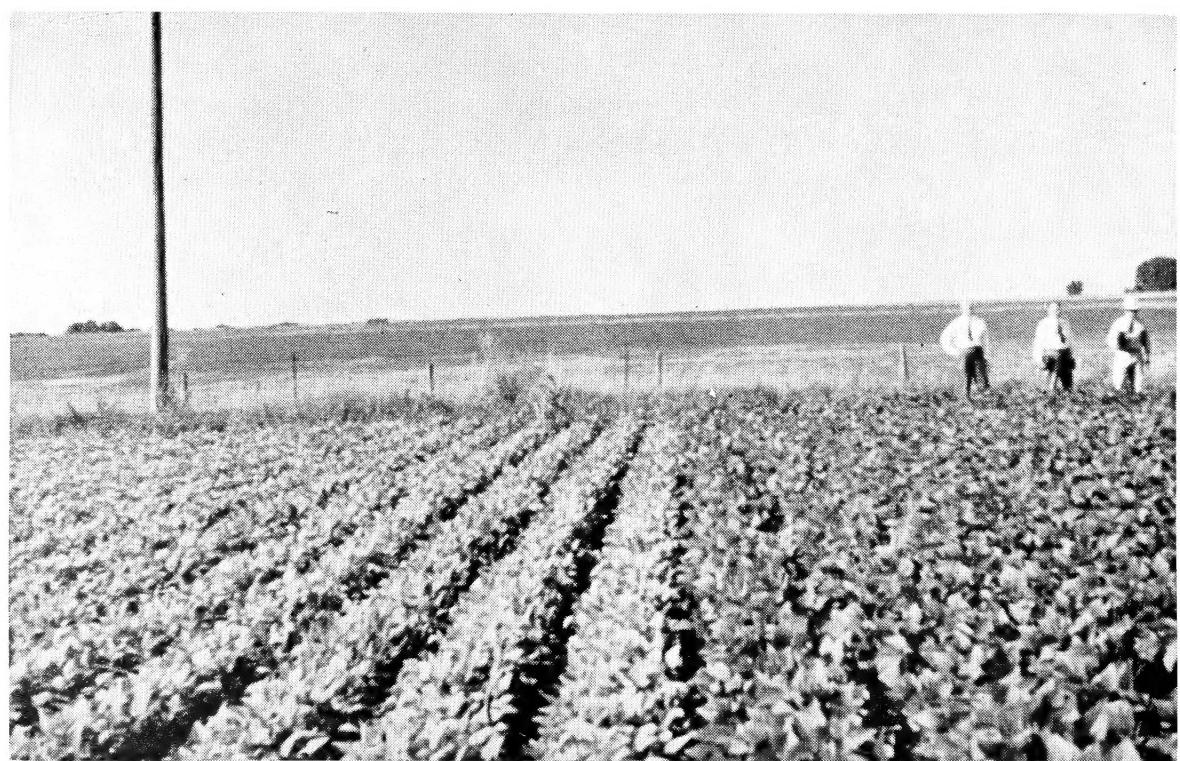
**IMPROVED STRINGLESS KIDNEY WAX**—62 days

PODS—6" x 1/2", fleshy, oval, stringless, medium yellow, fine texture, excellent quality.

PLANT—16" to 18", medium green leaves, upright and vigorous, prolific

SEED—Kidney shape, snow white with large black eye.

USE—Freezing and cut beans.



Mosaic Resistant Beans (right), Susceptible (left), Michael-Leonard Breeding Field

## **GREEN PODDED**

**BOUNTIFUL**—50 days

PODS— $6\frac{1}{2}$ " to 7" x  $\frac{1}{2}$ ", light green, thick flat, stringless but fibrous except in the young stage.

PLANT—16" to 20", upright, medium green, vigorous and prolific.

SEED—Yellow.

USE—Good for early local market, shipping and French cut for canning.

**FULL MEASURE**—54 days

PODS—6" x  $\frac{3}{8}$ " to  $7\frac{1}{16}$ ", fairly straight, dark green, stringless, nearly fiberless, fleshy, brittle.

PLANT—18" to 20", compact, not as hardy as others, erect with medium green foliage.

SEED—Brownish red, touched with buff.

USE—Cut beans.

**GIANT STRINGLESS GREEN POD**—53 days

POD—6" x  $\frac{1}{2}$ " to  $\frac{5}{8}$ ", round, stringless, brittle and fleshy, straight, medium to light green.

PLANT—16" to 18", erect, medium green and prolific.

SEED—Oval, brownish yellow.

USE—Freezing and cut beans.

**BURPEE'S STRINGLESS GREEN POD, IMPROVED**—54 days

POD— $5\frac{1}{2}$ " to 6" x  $\frac{3}{8}$ ", round, medium green, stringless and slightly curved.  
Good quality.

PLANT—16" to 21", erect, stands considerable drouth, medium green and vigorous.

SEED—Dark brown.

USE—Freezing and cut beans.



*Prolific New Bean Introduction—Contender*

## **BEANS—Continued**

### **CONTENDER—49 days**

POD— $5\frac{1}{2}$ " x  $7/16$ ", semi-round. Flesh thick, fiberless and stringless, medium dark green.

PLANT—14" to 16", vigorous, mosaic resistant, very prolific, pods borne low.

SEED—Medium large, long oval, excellent for green shelled as well as snap beans.

USE—Canning and freezing.

### **IDAHO REFUGEE—64 days**

PODS—5" to  $5\frac{1}{4}$ " x  $5/16$ " to  $3/8$ ", round, straight to slightly curved, fleshy, stringless. Excellent quality.

PLANT—16" to 20", upright, spreading, medium green, small leaves, vigorous, prolific and mosaic resistant.

SEED—Bluish purple splashed with buff.

USE—Whole or cut beans for canning.

This is a cross made from Michael-Leonard's Corbett Refugee, the first mosaic resistant Refugee.

### **TENDERGREEN—53 days**

PODS— $5\frac{1}{2}$ " to 6" x  $1/2$ ", round, stringless, fiberless, fleshy, thick, medium to dark green, good quality.

PLANT—16" to 20", erect, heavy, leaves dark green, fairly heat resistant.

SEED—Large, oval, purplish brown blotched with medium brown.

USE—Freezing and canning.

### **TOPCROP—50 days**

PODS—6" x  $3/8$ " to  $7/16$ ", slightly creaseback, fleshy, thick, very slender when young, straight, smooth. Stringless and without fibers. Medium to dark green.

PLANT—16" to 20", medium light green, erect, vigorous, very prolific and mosaic resistant.

SEED—Purplish-brown mottled, oblong.

USE—Freezing and canning.



*Disease Resistant, Prolific New Introduction—Topcrop*

## LIMA

### CANGREEN—70 days

PODS—3" x 3/4" to 7/8", nearly straight, medium green, 3 to 4 small seeds. Bronze green color when ripe.  
PLANT—14" to 18", upright, bushy, dark green, very prolific.  
SEED—Small, thick, deep green.  
USE—Freezing and canning.

### FORDHOOK BUSH—74 days

PODS—4" to 4 1/2" x 1 1/8", 3 to 4 seeds, medium green, straight, thick and plump.  
PLANT—16" to 19", fairly hardy, bushy, erect, dark green.  
SEED—Pale green in edible stage, thick, plump and oval shaped.  
USE—Freezing and canning.

### FORDHOOK NO. 242—74 days

PODS—3 3/4" x 1" to 1 1/8", shorter than regular Fordhook, otherwise similar.  
PLANT—16" to 20", upright, very productive, bushy, dark green. Withstands adverse weather conditions better than regular Fordhook.  
SEED—Thicker and slightly smaller than regular Fordhook.  
USE—Freezing and canning.

### HENDERSON BUSH—65 days

PODS—3" to 3 1/4" x 3/4" to 7/8", 3 to 4 small seeds, almost straight, medium green, flat.  
PLANT—16" to 18", bushy, glossy, very hardy, prolific.  
SEED—Small, almost round, white, flat.  
USE—Freezing and canning.

### PEERLESS (U. S. D. A. 243)—70 days

POD—3" to 3 1/2" x 7/8" to 1", slightly curved, 3 to 4 small seeds.  
PLANT—16" to 18", very similar to Henderson except the leaf is larger, and a medium green.  
SEEDS—Medium green when young, round, thick.  
USE—Freezing and canning.

### TRIUMPH (U. S. D. A. 343)—68 days

PODS—3" x 7/8", blunt, very thick, mainly 3 to 4 beans per pod.  
PLANT—14" to 16", sturdy, productive, compact, glossy, dark green.  
SEED—Thick, flat, light green.  
USE—Freezing and canning.

## BEETS

### PERFECTED DETROIT—70 days

TOPS—16" to 19", broad oval leaf blades, dark green tinged with deep red.  
INTERIOR COLOR—Blood red, uniform.  
ROOT—Globular shape at dicing stage, smooth skin.  
USE—Canning.

## CABBAGE

### GLOBE or GLORY OF ENKHUIZEN (Yellows Resistant)—80 days

HEADS—6" to 7" in diameter, weighing 5 to 6 lbs., solid, round, excellent quality.  
PLANT—14" to 16", medium dark green with bluish cast, spreading leaves, curved upward.  
USE—Kraut.

## **CABBAGE, Continued**

### **MARION MARKET or COPENHAGEN MARKET (Yellows Resistant)**

—78 days

HEADS—Weight 4 to 6 lbs., fine grained, deep round head, 8" in diameter.

PLANT—Medium size, 14" to 18", short stem, deep blue-green leaves.

USE—Kraut, storage.

### **WISCONSIN BALL HEAD (Yellows Resistant)—100 days**

HEADS—Weight 6 to 7 lbs. Globular to flattened globe 7" to 8", round, compact.

PLANT—Blue-green foliage, short stem, 14" to 16".

USE—Kraut and storage.

### **WISCONSIN HOLLANDER No. 8 (Yellows Resistant)—100 days**

HEADS—Weight 6 to 8 lbs., compact, uniform, 6" to 8" in diameter.

PLANT—Upright leaves, blue-green, 16" to 20".

USE—Kraut and storage.

### **RED HOLLANDER (Yellows Resistant)—100 days**

HEADS—Weight 6 to 7 lbs., solid, oval globe, 6½" to 7" in diameter.

PLANT—Purple red, 14" to 15" high.

USE—Kraut and storage.

### **COPENHAGEN MARKET—66 days**

HEADS—Solid, fine to medium textured, weight 8 to 9 lbs.

PLANT—Medium blue green, compact, short stem, cup shaped, 12" to 16".

USE—Kraut and storage.

### **DANISH BALL HEAD—100 days**

HEADS—6 to 7 lbs., 8" in diameter, solid, good keeper, flattened globe shape.

PLANT—Medium large leaves, upright leaves, blue green, 12" to 14".

USE—Kraut and storage. Good keeper.

### **GLORY OF ENKHUIZEN—80 days**

HEADS—Weight 5 to 6 lbs., interior creamy white, solid, nearly round.

PLANT—14" to 16", large leaves, color medium blue tinged green.

USE—Kraut.

### **PENN STATE BALL HEAD—115 days**

HEADS—Solid, deep oval flattened globe shape, weighing 5 to 6 lbs., small to medium core. Excellent keeper.

PLANT—Large leaves, medium size, upright, 12" to 16".

USE—Kraut and storage.

## **CARROT**

### **CHANTENAY RED CORED—70 days**

TOPS—14" to 18", strong top, moderately coarse foliage.

INTERIOR COLOR—Uniform, reddish orange, flesh tender and sweet.

ROOTS—5" to 6" x 2½", roundish shoulders, stump rooted with refined tap root.

USE—Freezing and canning.

### **LONG or GREATER CHANTENAY—70 days**

TOPS—16" to 20", medium dense foliage, strong top.

INTERIOR COLOR—Medium to reddish orange.

ROOTS—6" to 6½" x 2", heavy shoulder, stump rooted.

USE—Canning and market.

### **SCARLET NANTES—70 days**

TOPS—12" to 14", small collar, strong tops.

INTERIOR COLOR—Base orange skin, cortex and core.

ROOTS—Excellent quality, 6½" to 7" x 1¼", uniformly cylindrical.

USE—Market, canning and freezing.

# **CAULIFLOWER**

## **EARLY SNOWBALL—60 days**

**HEADS**—6" to 7" in diameter, compact, creamy white, excellent quality and flavor, weighs 1½ to 2 lbs.

**PLANT**—Dwarf, compact in growth, leaves erect and short, color pale blue green.

**USE**—Canning and freezing.

## **SUPER-SNOWBALL—56 days**

**HEADS**—Approximately 6½" to 7", solid, compact, snowy white, weighs about 1¾ lbs. Excellent quality.

**PLANT**—Dwarf, spreading type, uniform, pure white.

**USE**—Canning, freezing and shipping.

## **SNOWDRIFT—60 days**

**HEADS**—6" to 7" in diameter, weighs 1¾ to 2 lbs., solid and compact, white, excellent quality.

**PLANT**—Somewhat larger than Snowball, long, large, erect leaves.

**USE**—Freezing, canning and shipping.



*Special Canners' Strain Carrot Seed Field—Idaho*

# SWEET CORN

## YELLOW HYBRIDS

### ALPHABEST (Y)—65 days

*Originated by Michael-Leonard Company*

EAR—9" long, 8 to 10 rows, medium yellow, excellent quality, sweet and tender with well filled tips, long protecting husk.

PLANT—5½ ft. tall, vigorous, makes good early growth, dark green, drouth resistant.

USE—Canning, whole ear pack; market garden and home garden and freezing. A new introduction in the early class. A fine corn for the home gardener as well as bringing in a good early price for the market gardener.

### ALPHAGOLD (Y)—60 days

*Originated by Michael-Leonard Company*

EAR—7" long, 8 to 12 rows, light yellow, extra early.

PLANT—4½ ft. tall, scant foliage.

USE—Home garden.

Lead your neighborhood with the best quality early sweet corn, Alphagold Bantam. Rapid early growth plus nice yellow ears. Fancy edible period. Extra good resistance to drouth and smut.

### ALPINE BANTAM (Y)—57 days

*Originated by Michael-Leonard Company*

EAR—7" long, 8 to 12 rows, well filled tips, first early.

PLANT—5 ft. tall, very hardy, extra fast early growth.

USE—For first early garden use. Plant 10 days earlier than other kinds for the very first roasting ears. Short eating season.



*Michael-Leonard Company Sweet Corn Breeding Field at Ames, Iowa*



*Results of Power-Pak Treated Seed (left) Compared with Untreated (right)  
on the root growth of sweet corn*

**ARISTOGOLD BANTAM (Y)**—83 days *Originated by Michael-Leonard Company*

**EARS**—8" to 9" long, 12 to 14 rows, medium yellow, good kernel depth, excellent quality.

**PLANT**—7½ to 8 ft. tall, very vigorous, cold resistant, drouth resistant, dark green foliage, picks mechanically.

**USE**—Freezing, canning whole kernel and cream style.

Another All-America Selection that is very drouth resistant, makes high yields of long high quality ears. Fancy edible period, 83 to 88 days.

**ARISTOGOLD BANTAM EVERGREEN (Y)**—87 days

*Originated by Michael-Leonard Company*

**EAR**—9" to 10" long, 16 to 18 rows, medium yellow deep kernels, good quality.

**PLANT**—8 to 9 ft. tall, very vigorous, dark green foliage, drouth resistant, high yields, picks mechanically. Very wilt resistant.

**USE**—Canning, cream style corn.

Big ears and the most dependable production you can buy have made this one of the most widely used in America. Very outstanding throughout the South. Produces a good crop where many other varieties fail. Fancy edible period 85 to 90 days.

**GOLDEN CROSS BANTAM (Y)**—83 days

*Originated by Dr. Glenn Smith of Purdue University*

**EAR**—7½" to 8" long, 12 to 14 rows, average kernel depth, medium yellow.

**PLANT**—6½ to 7 ft. tall, vigorous, wilt resistant, straw color tassels.

**USE**—Freezing, canning whole kernel or cream style.

One of the first sweet corn hybrids developed, this hybrid is still a favorite with many gardeners on account of its rich flavor. Fancy edible stage 80 to 85 days.

## SWEET CORN—Continued

### GOLDEN CROSS BANTAM, WHITE SILK (Y)—81 days

*Originated by Michael-Leonard Company*

EAR—8" long, 12 to 14 rows, deeper than average kernel, medium yellow.

PLANT—6½ to 7 ft. tall, vigorous, dark green, wilt resistant, suckers moderately.

USE—Freezing and canning whole kernel or cream style. Clean white silks almost invisible if missed in packing.

This hybrid has all the good qualities of regular Golden Cross, plus pure white silks. You will be surprised at the clean wholesome appearance because of the almost indistinguishable silk fragments.

### GOLDEN GRAIN (Y)—87 days

*Originated by Michael-Leonard Company*

EAR—9" long, 18 to 22 rows, exceptionally deep kernels, medium yellow, quality good.

PLANT—8 to 9 ft. tall, very vigorous, drouth resistant, dark green foliage, high yields, picks mechanically.

USE—Canning cream style.

Another winner in the All-America Selections. A big spectacular corn with deep tender kernels. An excellent variety throughout the South. Has practically no suckers. Fancy edible period, 85 to 92 days.

### GOLDEN HUMMER (Y)—68 days

*Originated by Michael-Leonard Company*

EAR—8" long, 10 to 12 rows, medium yellow, fair kernel depth, medium to wide kernels, quality good.

PLANT—5 to 6 ft. tall, dark green, good yields.

USE—An early market corn for home garden, for canners in the North.

Large attractive ears with tender sweet kernels. A very good second early corn for your garden. Fancy edible period 65 to 70 days.



September Sweet Corn Seed Harvest in Idaho



*Michael-Leonard Tendermost Has High Cutting Percentage*

### **GOLDENSTATE (Y)—86 days**

*Originated by Michael-Leonard Company*

**EAR**— $8\frac{1}{2}$ " to 9" long, 12 to 14 rows, cylindrical, rich yellow, prolific.

**PLANT**—8 ft. tall, dark green, smut resistant.

**USE**—Canning cream or whole kernel, freezing, southern shipper.

Newest All-America winner from Michael-Leonard. A fine corn for the home and market gardener in the South and deep South. It has a rich golden color that makes it very attractive on the table.

### **IOANA D. R. (Y)—83 days**

*Our variation of the strain originated by Dr. E. S. Haber of Iowa State College*

**EAR**—8" to  $8\frac{1}{2}$ " long; 12 to 14 rows; light yellow, medium kernel depth and width, good quality.

**PLANT**— $7\frac{1}{2}$  to 8 ft. tall, widely adapted, few suckers, dark green, wilt resistant, more drouth resistant and makes higher yields than regular Ioana.

**USE**—Canning, whole kernel or cream style.

Very similar to the regular Ioana except that it has a taller stalk, longer ear and more drouth resistant. Fancy edible stage 83 to 86 days.

### **IOANA W. S. (Y)—83 days**

*A variation of our Ioana D. R. Strain*

**EAR**—Same as Ioana D. R. except the silks are snow white.

**PLANT**—Same as Ioana D. R.

**USE**—Same as Ioana D. R. but having white silks, missed fragments are harder to detect in cream style.

Very similar to Ioana D. R. except that the silks are snowy white, giving a cleaner appearance.

### **IOCHIEF (Y)—86 days**

*Originated by Dr. E. S. Haber of Iowa State College*

**EAR**—8" to 9" long, 14 to 18 rows, good quality, brilliant yellow, deep kernels.

**PLANT**—7 to  $7\frac{1}{2}$  ft. tall, few suckers, dark green, drouth resistant, good yields.

**USE**—Canning whole kernel and cream style.

A fine variety for the home garden. Produces large ears on large stalks. The yields are high and the fancy edible period is 85 to 88 days.

## SWEET CORN—Continued

**MARCROSS (Y)**—76 days *Originated by the Connecticut Agricultural Experiment Station*

EAR—7" long, 10 to 14 rows with broad kernels, light yellow, fairly good flavor and quality.

PLANT—5 ft. tall, medium broad leaves, medium green, few suckers.

USE—Canning in far North and market garden areas elsewhere.

A good early variety used in the home garden and in the eastern and northern market garden areas.

**TENDERBLONDE (Y)**—84 days *Originated by Michael-Leonard Company*

EAR—8" to 9" long, 14 to 16 rows, brilliant yellow, excellent quality, good holding power in the field. White silks, hard to detect.

PLANT—7 to 8 ft. tall, dark green, very few suckers, drouth resistant, picks mechanically.

USE—Freezing and canning whole kernel and cream style.

This new hybrid is a little larger than Golden Cross, deeper kernels, clean white silks and longer holding in the garden. A fine new up-to-date hybrid with the rich good flavor that made Golden Cross famous. Fancy edible period 81 to 86 days.

**TENDERGOLD (Y)**—77 days *Originated by Michael-Leonard Company*

EAR—7" to 8" long; 10 to 12 rows, medium yellow, good flavor.

PLANT—5½ to 6 ft. tall, medium green.

USE—Canning, cream style and market gardeners and for the home garden.

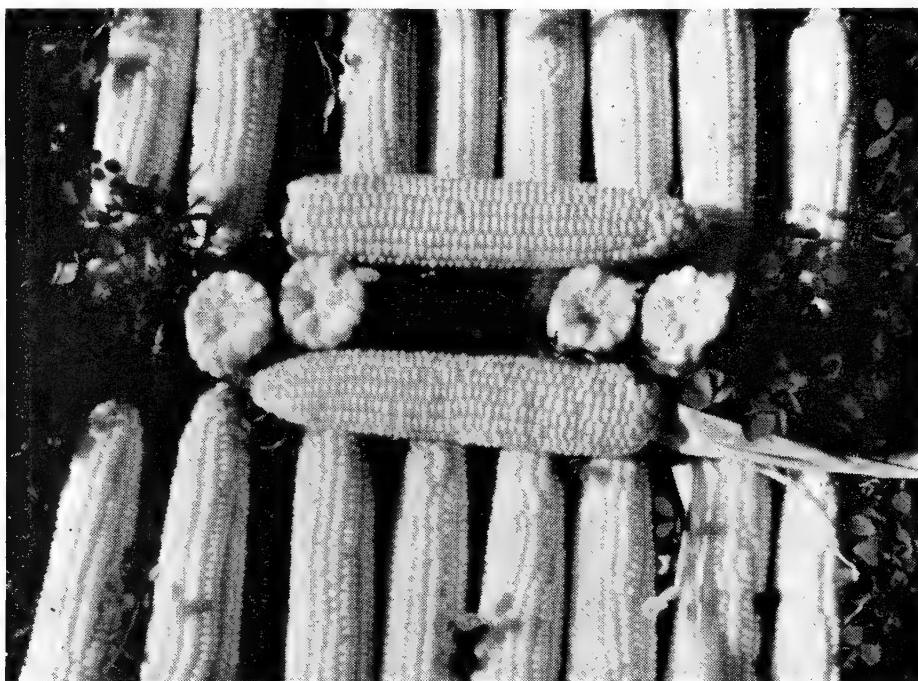
An early corn that ripens about four days ahead of Golden Bantam and yields about twice as much. Try this in your home garden this season. Fancy edible stage 74 to 81 days.

**TENDERMOST (Y)**—85 days *Originated by Michael-Leonard Company*

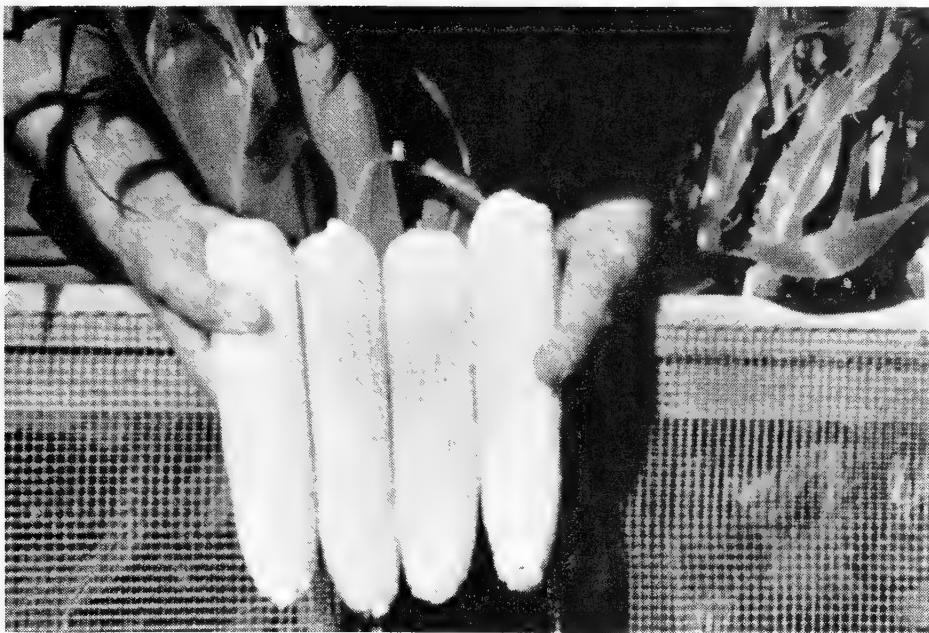
EAR—9" to 9½" long, 14 to 18 rows, brilliant yellow, holds very well in the field, excellent quality. Very deep kernel, small cob.

PLANT—7 to 7½ ft. tall, dark green, sparsely suckered, picks mechanically, wilt resistant.

USE—Freezing, canning whole kernel or cream style, market and home gardeners. Of all the hybrids we have developed, this is the most tender and succulent. Large ears, deep sugary-sweet kernels. This corn stays sweet and tender on the stalk for nearly two weeks. Fancy edible stage 81 to 91 days. Make successive plantings in the northern half of the United States from early May to mid-July for continuous summer crops.



*A Major Improvement—Snow White Silks on Tendermost*



*Golden State—Michael-Leonard's Newest All-America Introduction*

### TENDERMOST, WHITE SILK (Y)—84 days

*Originated by Michael-Leonard Company*

**EAR**—Same as regular Tendermost except the silks are snow white.

**PLANT**—Same as Tendermost.

**USE**—Same as regular Tendermost but texture a little better for freezing or cream style. White silks make missed fragments hardly detectable.

This hybrid has all the high qualities of regular Tendermost, plus pure white silks.

### TENDERMOST 18, WHITE SILK (Y)—85 days

*Originated by Michael-Leonard Company*

**EAR**—16 to 18 rows, otherwise the same as regular Tendermost.

**PLANT**—10" to 12" taller than regular Tendermost.

**USE**—Freezing, canning whole kernel and cream style. Market and home gardens. This is an excellent new variety that the home gardeners will really like. It has all the good points of regular Tendermost plus two to four more rows of kernels and a larger stalk.

### TOP FLIGHT BANTAM (Y)—83 days

*Originated by Michael-Leonard Company*

**EAR**—8" to 9" long, 14 to 16 rows of medium yellow kernels.

**PLANT**—6½ to 7 ft. tall, dark green.

**USE**—Canning, whole kernel or cream style. Market or home gardens.

A good name for a hybrid that has been selected a winner in the All-America Selections. Very prolific, fine quality with ears ranging from 8 to 9 inches in length. Fancy edible period 81 to 86 days.

### TRISTATE (Y)—86 days

*Originated by Michael-Leonard Company*

**EAR**—8" to 9" long, mainly 14 rows with perfectly filled tips.

**PLANT**—7½ to 8 ft. tall, dark green, very drouth resistant, high yields, vigorous, picks mechanically.

**USE**—Canning, cream style.

This is one hybrid that is not sensitive to soil type. Makes good yields most any place and in dry seasons, too. An excellent variety for the South. Fancy edible period 84 to 88 days.

## SWEET CORN—Continued

### WHITE HYBRIDS

#### SILVER CROSS BANTAM (W)—83 days

*Originated by Michael-Leonard Company*

**EAR**—8" to 9" long, 12 to 14 rows, snow white, good kernel depth, has flavor like Golden Cross, very rich.

**PLANT**—6½ to 7½ ft. tall, vigorous, widely adapted, good yielder, picks mechanically.

**USE**—Canning whole kernel or cream style.

If you like white corn, don't miss this one. Silver Cross Bantam has the same high quality that Golden Cross possesses. In fact, they look alike except Silver Cross is white. Fancy edible stage 80 to 86 days.

#### SILVER CROSS EVERGREEN (W)—87 days

*Originated by Michael-Leonard Company*

**EAR**—8" long, 16 rows of pure white kernels, high sugar and good quality.

**PLANT**—7½ to 8½ ft. tall, heavy stalk, dark green, grand yielder, picks mechanically.

**USE**—Canning, whole kernel, cream style.

Sweeter, larger ears, bigger stalks, better ears than the open pollinated types. A fine Evergreen type for your home garden. Fancy edible stage 85 to 90 days.



*Another First for Michael-Leonard—White Silk Golden Cross*



*Aristogold Bantam Evergreen—A Great Wilt Resister*

### SILVER CROSS NARROWGRAIN (W)—91 days

*Originated by Michael-Leonard Company*

**EAR**—8" to 9" long, 16 to 22 rows of extra deep white kernels.

**PLANT**—8 ft. tall, heavy stalk, productive and of dark green color, picks mechanically.

**USE**—Canning whole kernel or cream style.

For a corn that gives you big ears and high yields, deep, tender and sweet kernels, try Silver Cross Narrowgrain. Fancy edible period 87 to 92 days.

### IOGREEN 16 (W)—93 days

*Originated by Dr. E. S. Haber, Iowa State College*

**EAR**—7" to 8" long, 16 to 18 rows, good length, fair quality.

**PLANT**—7 to 8 ft. tall, vigorous, dark green, free of suckers, picks mechanically.

**USE**—Canning cream style.

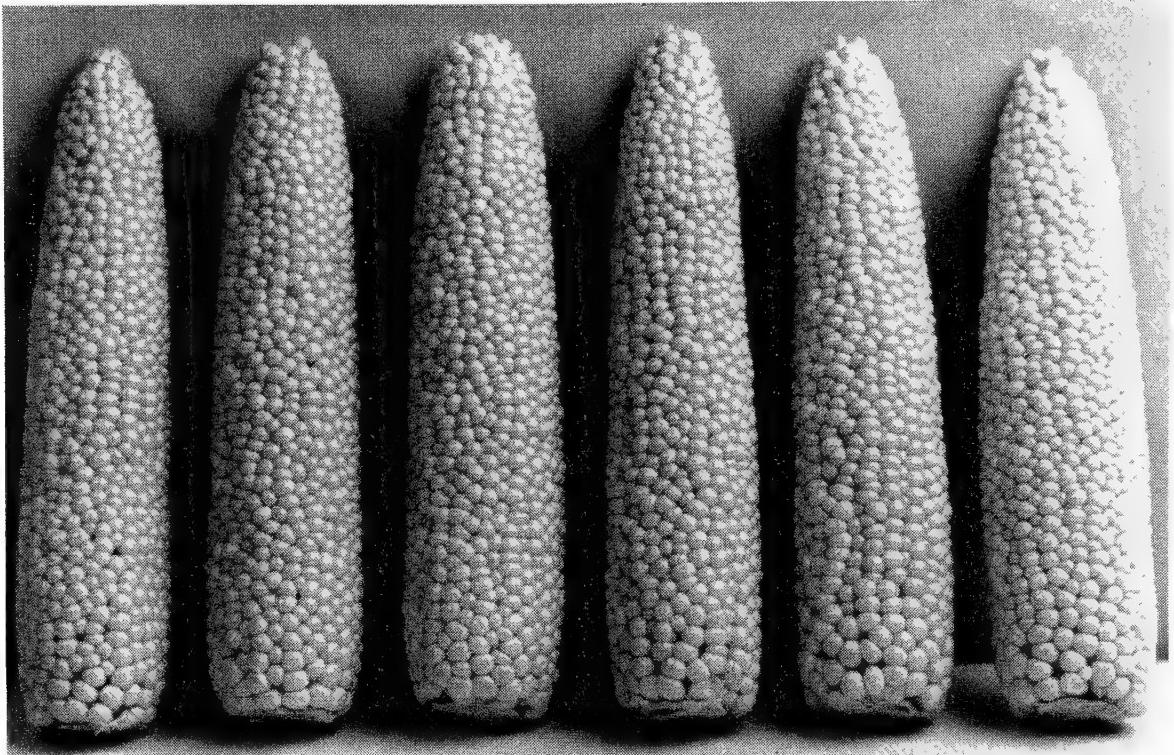
### IOGREEN 56 (W)—94 days

*Originated by Dr. E. S. Haber, Iowa State College*

**EAR**—7" to 8" long, 20 to 24 rows, narrow kernel, deep, blocky ear, good quality.

**PLANT**—8 to 9 ft. tall, heavy stalk, dark green, ear high, adapted to mechanical picker.

**USE**—Canning whole kernel or cream style.



*Introducing Finegrain Country Gentleman—For Fancy Shoepeg Pack*

### SWEET CORN—Continued

#### FINEGRAIN COUNTRY GENTLEMAN (W)—92 days

*Originated by Michael-Leonard Company*

EAR—8" to 9" long, zigzag, fine snowy white kernels, small cob, well filled tips.  
PLANT—7 ft. tall, drouth resistant, high yielding, less ear worms than most  
Shoepeg types.

USE—Canning whole kernel or cream style.

If you like Country Gentleman type corns, try this new hybrid in your garden. We  
are sure you will like it. It possesses tiny kernels and has a rich choice flavor.  
Fancy edible period 89 to 94 days.

#### SILVER CROSS STOWELL'S (W)—94 days

*Originated by Michael-Leonard Company*

EAR—7" to 8" long, 16 to 18 rows, good depth, quality good.

PLANT—7 to 8 ft. tall, dark green, sturdy, picks mechanically.

USE—Canning cream style.

If you've ever planted open pollinated "Stowell's Evergreen" you'll be sure to like  
Silver Cross Stowell's even better. Better yields, stronger plants and of superior  
quality. Fancy edible period 93 to 97 days.

#### WHITE TENDERMOST (W)—83 days *Originated by Michael-Leonard Company*

EAR—8½" to 9" long, 14 to 16 rows, crisp, rich flavor, medium deep kernels,  
small cobs.

PLANT—7 ft. tall, withstands drouth, good mechanical picker.

USE—Canning cream style or whole kernel.

This new hybrid has all the good qualities of the regular Tendermost, except it is  
white. For rich flavor, tender kernels and good yields plant some White Tender-  
most. Fancy edible period 82 to 89 days.

## CUCUMBER

### BOSTON PICKLING, b.s.—58 days

FRUIT—6" to 8" x 2" to 3", medium dark green, slightly tapered.

VINE—Productive, stronger grower, vigorous and of the broad leaf type.

USE—Dills.

### CHICAGO PICKLING, b.s.—57 days

FRUIT—5" to 7" x 2 $\frac{1}{4}$ " to 2 $\frac{3}{4}$ ", square ends, pickles are uniform, cylindrical and dark green.

VINE—Hardy, vigorous and good leaf coverage.

USE—Fine for dills.

### NATIONAL PICKLING, b.s.—54 days

FRUIT—6" x 2 $\frac{1}{4}$ " to 3", dark green, blunt ends and cylindrical.

VINE—Medium large dark green leaves. Vigorous and prolific.

USE—Small sized pickles and dills.

### GHERKIN, WEST INDIA, b.s.—60 days

FRUIT—1 $\frac{1}{2}$ " to 2" x 1", small, oval shape, light green, uniform. Covered with short prickling spine.

VINE—Strong, vigorous grower, good yielder, small. Leaves similar to watermelon.

USE—For fancy pickle packs.

### EARLIEST OF ALL, w.s.—60 days

FRUIT—1 $\frac{3}{4}$ " to 2" x 1 $\frac{1}{4}$ ", light green, small oval shape.

VINE—Small but vigorous and a good yielder. Covers fruit well.

USE—Fancy pickles.

### SNOW'S PERFECTION PICKLE, b.s.—56 days

FRUIT—2 $\frac{1}{2}$ " x 5", dark green and cylindrical, blunt ends, excellent quality.

VINE—Vigorous, medium leaf coverage.

USE—Dills.

## DILL

### LONG ISLAND MAMMOTH

PLANTS—Vigorous grower, leaves fine, grows 2" to 2 $\frac{1}{2}$ " tall.

SEED—Very flat, brown.

USE—Flavoring for pickles.

## MUSTARD

### CHINESE BROAD LEAF—40 days

PLANT—Medium green, spreading type, productive and 10" tall.

SEED—Reddish brown.

### FLORIDA BROAD LEAF

PLANT—Spreading, slow bolting, fairly productive and approximately 10" tall.

SEED—Reddish brown.

### SOUTHERN GIANT CURLED—40 days

PLANT—Upright in growth, very large, spreading, medium yellowish-green. 10" tall.

SEED—Reddish brown.

### MUSTARD-SPINACH or TENDERGREEN—35 days

PLANT—Rapid growing, glossy dark green, spreading, heat and drouth resistant.

SEED—Does not bolt seeds quickly; dark reddish brown.

## OKRA

CLEMSON SPINELESS—55 days

PODS—6" to 8", tapered at tip, rich green, fluted, good quality.

PLANT—4 $\frac{1}{4}$  to 4 $\frac{1}{2}$  ft. tall, prolific, similar to Perkins Mammoth Podded.

USE—Canning.

GREEN VELVET—58 days

PODS—

PLANT—5 to 5 $\frac{1}{2}$  ft. tall, erect, very prolific, pods borne close to stalk.

USE—Canning. Retains original color when processed.

PERKINS MAMMOTH LONG PODDED—57 days

PODS—7" to 8", deep green, tapered, fleshy and of excellent quality.

PLANT—4 $\frac{1}{2}$  ft. tall, productive and carries a heavy foliage.

USE—Canning.

WHITE VELVET—58 days

PODS—6" to 7" long, creamy white, straight, smooth, fleshy and good quality.

PLANT—4 to 5 ft. tall, prolific.

USE—Canning.

## ONION

WHITE EBENEZER—100 days

BULB—Flat but thick, clear white, medium size and solid. Good keeper.

USE—Sets and pickling.

WHITE PORTUGAL or SILVERSKIN—100 days

BULB—White, solid and fine grained, flat and medium sized.

USE—Pickling and sets.



Pickling Type Onion Field—Idaho



*Stuart's Perfection—A Wilt and Drouth Resistant Type*

## PEAS

### SMOOTH SEEDED

#### ALASKA HF 30—58 days

*Originated by Michael-Leonard Company*

PODS— $2\frac{1}{2}$ " x  $\frac{1}{2}$ ", straight, light green, plump, mature, uniformly 6 to 8 peas.

VINE—30" to 36" tall, foliage light blue green. Resistant to Fusarium Wilt.

SEED—Medium blue green, small, round and smooth.

USE—Canning.

#### ALASKA M-L33—53 days

*Originated by Michael-Leonard Company*

PODS— $3\frac{1}{2}$ " x  $\frac{3}{4}$ ", straight, shells easily, light green, 8 to 10 peas.

VINES—33" to 38" tall, light green, fast early growth, wilt resistant.

SEED—Medium small, smooth, blue green.

USE—Canning.

### WRINKLED SEEDED

#### ALDERMAN—75 days

PODS—4" to 5" x  $\frac{1}{2}$ " to  $\frac{5}{8}$ ", blunt, dark green, plump, well filled, borne singly and contain 8 to 10 peas.

VINE—45" to 60", large leaves, large stems, prolific and a hardy grower.

USE—Canning and freezing.

#### EARLY PERFECTION—67 days

PODS— $3\frac{1}{2}$ " x  $\frac{5}{8}$ ", borne singly and doubly, straight, plump.

VINE—28" to 30" tall, vigorous. Resistant to Fusarium Wilt.

SEED—Medium-green, medium size and wrinkled.

USE—Canning.

#### STUART'S PERFECTION WILT RESISTANT—70 days

*Originated by Michael-Leonard Company*

PODS—3" to  $3\frac{1}{2}$ " x  $\frac{5}{8}$ ", medium green, doubles, straight, 6 to 8 peas.

VINE—20" to 30" tall, medium green and medium heavy stem.

SEED—Medium green, medium size and wrinkled.

USE—Canning.

#### THOMAS LAXTON WILT RESISTANT—63 days

PODS— $3\frac{1}{4}$ " to  $3\frac{1}{2}$ " x  $\frac{5}{8}$ ", singles, blunt, dark green, 6 to 8 peas per pod.

VINE—30" to 38" tall, wilt resistant, medium heavy foliage, dark green.

SEED—Medium size, rounded, wrinkled and medium green.

USE—Freezing and canning.

## **PEPPER**

### **CALIFORNIA WONDER (Sweet)—76 days**

**FRUITS**—Diameter 3½" to 4", length 4" to 4½", blocky four lobed, sweet flesh and thick walls, glossy dark green, becoming deep red at maturity.

**PLANT**—22" to 28" tall, upright, stocky and productive.

### **SWEET BANANA (Sweet)—65 days**

**FRUITS**—Diameter 1½", length 6½", sweet, medium thick, small, light yellow color turning to bright red at maturity.

**PLANT**—20" to 24" tall, dark green, prolific, erect.

### **LONG SLIM CAYENNE (Hot)—70 days**

**FRUITS**—Diameter at shoulder, ½" to 1", length 4" to 5", long, very slim, dark green changing to bright dark red when mature.

**PLANT**—24" to 30" tall, upright with bushy top, very vigorous.

### **PIMENTO (Sweet)—79 days**

**FRUITS**—Diameter 2½", length 3½", thick walled, sweet fleshed, heart shape, dark green, becoming bright crimson at maturity.

**PLANT**—26" to 30" tall, vigorous, erect, productive and dark green.

### **RED CHILI (Hot)—82 days**

**FRUITS**—Diameter ½" at shoulder, length 2" to 2½", cone shaped, pale yellow green turning to red, are of the hottest for pickles.

**PLANT**—18" tall, prolific, low spreading type.

### **RUBY KING (Sweet)—70 days**

**FRUITS**—Diameter 2½" at shoulder, length 4" to 5", pendant, three lobed, mild to sweet, dark green changing to glossy red.

**PLANT**—22" to 26" tall, erect, vigorous, dark green.

## **PUMPKIN**

### **CONNECTICUT FIELD—117 days**

**FLESH**—Thick, orange yellow, coarse, dry and sweet.

**FRUITS**—10" to 14" deep, 12" to 14" in diameter, weigh about 20 to 25 pounds, slightly flattened at ends, orange yellow color.

**USE**—Canning.

### **EARLY SUGAR or PIE—115 days**

**FLESH**—Fine textured, orange yellow, thick, sweet.

**FRUITS**—8" to 10" deep x 10" in diameter, dark orange, weighs 6 to 8 pounds. Excellent quality.

**USE**—Canning.

### **KENTUCKY FIELD—119 days**

**FLESH**—Dark to yellow orange, coarse, very little fiber.

**FRUITS**—8" to 10" deep x 12" to 14" in diameter, weighing 10 to 14 pounds, vary in size. Outside is buff color.

**USE**—Canning.

## **SPINACH**

### **BLOOMSDALE SAVOY, LONG STANDING—42 days**

**LEAVES**—Heavily savoyed and crumpled, rounded, tender, thick, glossy, dark green. Quality good.

**PLANT**—Upright, vigorous, compact, bolts 10 to 14 days. Later than Bloomsdale Reselected. Stands hot weather better.

**USE**—Canning.

### **GIANT NOBEL—45 days**

**LEAVES**—Medium green, thick, large broad leaves, smooth tapered to rounded tip.

**PLANT**—Vigorous, spreading, productive.

**USE**—Freezing and canning.

### **KING OF DENMARK—44 days**

**LEAVES**—Glossy green, smooth, thick, tender and of medium size.

**PLANT**—Open spreading type and somewhat flat, slowest bolting of all varieties.

**USE**—Canning.

### **OLD DOMINION (BLIGHT RESISTANT)—40 days**

**LEAVES**—Dark green, medium thick, tender, moderately crumpled.

**PLANT**—Rapid grower, semi-erect, foliage not too dense. Used for Fall planting.

**USE**—Canning.

### **VIKING—45 days**

**LEAVES**—Thick, very large, broad, narrow and pointed, dark green and partially crumpled.

**PLANT**—Large and spreading, vigorous, long standing.

**USE**—Canning.

### **SAVOY LEAVED BLOOMSDALE—40 days**

**LEAVES**—Good producer, dark green and crumpled.

**PLANT**—Fast in growth, vigorous, bolts to seed in hot weather.

**USE**—Canning.

## **SQUASH**

### **BOSTON MARROW—98 days**

**FLESH**—Fine grained, thick, moist and orange golden in color.

**FRUIT**—12" to 14" long, 9" to 12" in diameter, looks like Hubbard in size, weighs about 6 to 9 pounds.

**USE**—Freezing and canning.

### **GOLDEN DELICIOUS—105 days**

**FLESH**—Orange to yellow, medium grained, thick, dry, good quality.

**FRUIT**—10" to 12" long, 8" to 10" in diameter, skin hard and smooth, weighs 6 to 9 pounds.

**USE**—Freezing and canning.

### **RED or GOLDEN HUBBARD—110 days**

**FLESH**—Fine grained, dry, thick, deep orange yellow.

**FRUIT**—10" to 12" long, 8" in diameter, hard, warted, orange color, and weighs 9 to 10 pounds.

**USE**—Freezing and canning.

## TOMATO

**BONNY BEST** (Chalk's Early Jewell)—(John Baer)—75 days

VINE—Medium size, giving only fair coverage to fruit.

FRUIT—Medium size, smooth, small cored, solid flesh, free from circular cracking, good scarlet color and quality.

**GREATER BALTIMORE**—83 days

VINE—Very vigorous, large bushy vine. Very productive.

FRUIT—Large, smooth, solid deep flat tomato with excellent red color.

**MARGLOBE**—80 days

VINE—Vigorous, erect large plants, productive and resistant to Fusarium Wilt.

FRUIT—Medium to large, deep scarlet, smooth and has very solid flesh. White fibers show up on inside flesh and should be allowed to fully ripen to get the best color for canning.

**PRITCHARD**—76 days

VINE—Very bushy because of their self-pruning or self-topping method, very productive, medium dark green and resistant to wilt.

FRUIT—Globe shape, flattened at base, medium size, outer color good red, interior color deep red.



*Selected Canners' Strain of Rutgers*

### **RUTGERS—75 days**

**VINE**—Bushy growth, vigorous, very productive.

**FRUIT**—Medium large, dark scarlet, very solid and firm, good interior color which makes it very desirable for canners.

### **SIOUX or EARLY RED—70 days**

**VINE**—Leaves are finely divided, ripens uniformly.

**FRUIT**—Medium size, thick walled, red, globular, juicy and good flavor.

### **STOKESDALE—72 days**

**VINE**—Some spreading, medium size, medium green, productive.

**FRUIT**—Almost globe shape, medium size, solid flesh, bright scarlet.

### **STONE, IMPROVED—84 days**

**VINE**—Large plant, vigorous, very productive.

**FRUIT**—Large scarlet, solid, deep and flattened, smooth, good color

### **WISCONSIN NO. 55—75 days**

**VINE**—Spreading type but possesses enough foliage.

**FRUIT**—Flatter than Marglobe and in the large size class. Very good interior color. Quite free from cracking and ridging.

## **RUTABAGA**

### **AMERICAN PURPLE TOP—90 days**

**TOPS**—16" to 20", upright, vigorous, smooth, cut leaved, medium short neck.

**ROOTS**—5" to 7" in diameter, smooth, deep purplish above ground, yellowish below, good keeper.

**USE**—Canning.

## **TURNIP**

### **PURPLE TOP WHITE GLOBE—56 days**

**TOPS**—14" to 20" high, medium green, erect growth.

**ROOTS**—5" to 6" in diameter, clear white with purplish tinged red top, globular shaped, flesh is snow white, tender and crisp.

**USE**—Roots for canning, leaves canned for greens.

### **SHOGOIN—42 days**

**TOPS**—18" to 20" high, quick growing, strap leaved, bright green.

**ROOTS**—2" to 2½" in diameter, oval, small, snowy white, tender and crisp.

**USE**—Leaves canned as greens.

# REFERENCE TABLES

## Quantity of Seeds Requisite to Produce a Given Number of Plants and Sow an Acre

	Quantity Per Acre		Quantity Per Acre
Artichoke, 1 oz. to 500 plants.....	6 oz.	Hemp .....	$\frac{1}{2}$ bu.
Asparagus, 1 oz. to 800 plants.....	4 lbs.	Horse-Radish Roots .....	10,000 to 15,000
Asparagus Roots .....	1000 to 7250	Kale, 1 oz. to 5,000 plants.....	4 lbs.
Barley .....	2 bu.	Kohl-Rabi, $\frac{1}{3}$ oz. to 100 ft. of drill.....	4 lbs.
Beans, Dwarf, 1 lb. to 100 ft. of drill....	60 lbs.	Leek, 1 oz. to 100 ft. of drill.....	4 lbs.
Beans, Pole, $\frac{1}{2}$ lb. to 100 hills.....	30 lbs.	Lettuce, $\frac{1}{4}$ oz. to 100 ft. of drill.....	3 lbs.
Beet, Garden, 1 oz. to 100 ft. of drill....	7 lbs.	Melon, Musk, 1 oz. to 100 hills.....	3 lbs.
Beet, Mangel, 1 oz. to 100 ft. of drill....	5 lbs.	Melon, Water, 4 oz. to 100 hills.....	3 lbs.
Broccoli, 1 oz. to 5,000 plants.....	2 oz.	Nasturtium, 2 oz. to 100 ft. of drill.....	15 lbs.
Brussels Sprouts, 1 oz. to 5,000 plants....	3 oz.	Okra, 2 oz. to 100 ft. of drill.....	10 lbs.
Buckwheat .....	1 bu.	Onion Seed, $\frac{1}{3}$ oz. to 100 ft. of drill....	4 to 5 lbs.
Cabbage, 1 oz. to 4,000 plants.....	2 oz.	Onion Seed for sets.....	40 to 80 lbs.
Carrot, 1 oz. to 100 ft. of drill.....	3 to 4 lbs.	Onion Sets, 1 qt. to 40 ft. of drill.....	8 bu.
Cauliflower, 1 oz. to 2,500 plants.....	4 to 6 oz.	Parsnip, $\frac{1}{2}$ oz. to 100 ft. of drill.....	3 lbs.
Celery, 1 oz. to 6,000 plants.....	4 oz.	Parsley, $\frac{1}{4}$ oz. to 100 ft. of drill.....	3 lbs.
Chicory .....	4 lbs.	Peas, Garden, 1 lb. to 100 ft. of drill....	1 to 3 bu.
Clover, Alsike and White Dutch.....	6 lbs.	Peas, Field .....	2 bu.
Clover, Crimson .....	10 to 15 lbs.	Pepper, 1 oz. to 1,500 plants.....	4 oz.
Clover, Large Red and Medium.....	8 to 12 lbs.	Pumpkin, 4 oz. to 100 hills.....	3 to 4 lbs.
Collards, 1 oz. to 5,000 plants.....	4 oz.	Radish, $\frac{1}{3}$ oz. to 100 ft. of drill.....	8 to 12 lbs.
Corn, Sweet, 1 pound to 200 hills.....	7 to 10 lbs.	Rye .....	$1\frac{1}{2}$ bu.
Cress, $\frac{3}{4}$ oz. to 100 ft. of drill.....	12 lbs.	Salsify, $\frac{3}{4}$ oz. to 100 ft. of drill.....	8 lbs.
Cucumber, 1 oz. to 100 hills.....	1 to 3 lbs.	Spinach, 1 oz. to 100 ft. of drill.....	10 to 15 lbs.
Egg Plant, 1 oz. to 2,000 plants.....	4 oz.	Summer Savory .....	$\frac{3}{4}$ lb.
Endive, 1 oz. to 100 ft. of drill.....	3 to 5 lbs.	Sunflower .....	8 lbs.
Grass, Blue, Kentucky.....	30 to 40 lbs.	Squash, Summer, 4 oz. to 100 hills.....	2 lbs.
Grass, Hungarian and Millet.....	25 lbs.	Squash, Winter, 8 oz. to 100 hills.....	2 lbs.
Grass, Mixed Lawn.....	100 lbs.	Tomato, 1 oz. to 2,000 plants.....	2 oz.
Grass, Red Top, Fancy, Clean.....	8 to 10 lbs.	Tobacco, 1 oz. to 5,000 plants.....	2 oz.
Grass, Timothy .....	10 lbs.	Turnip, 1 oz. to 100 ft. of drill.....	2 lbs.
Grass, Orchard, Perennial Rye and Wood Meadow .....	2 bu.	Vetch .....	2 bu.

## MEASUREMENT OF AN ACRE

The following will be found useful in arriving at accuracy in estimating the amount of land in different pieces of ground under cultivation: 5 yards wide by 968 yards long contains 1 acre, as do also the following measurements: 10 yards wide by 484 yards long; 20 yards wide by 242 yards long; 40 yards wide by 121 yards long; 70 yards wide by  $69\frac{1}{2}$  yards long; 60 feet wide by 726 feet long; 110 feet wide by 396 feet long; 120 feet wide by 363 feet long; 220 feet wide by 198 feet long; 240 feet wide by  $18\frac{1}{2}$  feet long, and 440 feet wide by 99 feet long.

## NUMBER OF PLANTS OR TREES TO THE ACRE AT GIVEN DISTANCES

Dis. Apart	No. Plants	Dis. Apart	No. Plants	Dis. Apart	No. Plants
12x 1 in.	522,720	30x16 in.	13,068	48x36 in.	3,630
12x 3 in.	174,240	30x20 in.	10,454	48x48 in.	2,723
12x12 in.	43,560	30x24 in.	8,712	60x36 in.	2,901
16x 1 in.	392,040	30x30 in.	6,970	60x48 in.	2,178
18x 1 in.	348,480	36x 3 in.	58,080	60x60 in.	1,743
18x 3 in.	116,160	36x12 in.	14,520	8x 1 ft.	5,445
18x12 in.	29,040	36x18 in.	9,680	8x 3 ft.	1,815
18x18 in.	19,360	36x24 in.	7,260	8x 8 ft.	680
20x 1 in.	313,635	36x36 in.	4,480	10x 1 ft.	4,356
20x20 in.	15,681	42x12 in.	12,446	10x 6 ft.	726
24x 1 in.	261,360	42x24 in.	6,223	10x10 ft.	435
24x18 in.	15,520	42x36 in.	4,148	12x 1 ft.	3,630
24x24 in.	10,890	48x12 in.	10,890	12x 5 ft.	736
30x 1 in.	209,088	48x18 in.	7,790	12x12 ft.	302
30x 6 in.	34,848	48x24 in.	5,445	16x 1 ft.	2,722
30x12 in.	17,424	48x30 in.	4,356	16x16 ft.	170



